

# 3



OIPE

ENTERED

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/029,020

DATE: 10/01/2002 <sup>P.6</sup>  
 TIME: 15:38:55

Input Set : A:\Cura2251.app  
 Output Set: N:\CRF4\10012002\J029020.raw

```

3 <110> APPLICANT: Gangolli et al.
5 <120> TITLE OF INVENTION: Polypeptides and Nucleic Acids Encoding Same
7 <130> FILE REFERENCE: 21402-225
9 <140> CURRENT APPLICATION NUMBER: 10/029,020
10 <141> CURRENT FILING DATE: 2001-12-19
12 <150> PRIOR APPLICATION NUMBER: 60/256,704
13 <151> PRIOR FILING DATE: 2000-12-19
15 <150> PRIOR APPLICATION NUMBER: 60/311,590
16 <151> PRIOR FILING DATE: 2001-08-10
18 <150> PRIOR APPLICATION NUMBER: 60/257,314
19 <151> PRIOR FILING DATE: 2000-12-20
21 <150> PRIOR APPLICATION NUMBER: 60/311,613
22 <151> PRIOR FILING DATE: 2001-08-10
24 <150> PRIOR APPLICATION NUMBER: 60/315,617
25 <151> PRIOR FILING DATE: 2001-08-29
27 <150> PRIOR APPLICATION NUMBER: 60/307,506
28 <151> PRIOR FILING DATE: 2001-07-24
30 <150> PRIOR APPLICATION NUMBER: 60/322,358
31 <151> PRIOR FILING DATE: 2001-09-14
33 <150> PRIOR APPLICATION NUMBER: 60/294,075
34 <151> PRIOR FILING DATE: 2001-05-29
36 <150> PRIOR APPLICATION NUMBER: 60/288,153
37 <151> PRIOR FILING DATE: 2001-05-02
39 <160> NUMBER OF SEQ ID NOS: 190
41 <170> SOFTWARE: PatentIn Ver. 2.1
43 <210> SEQ ID NO: 1
44 <211> LENGTH: 3137
45 <212> TYPE: DNA
46 <213> ORGANISM: Homo sapiens
48 <400> SEQUENCE: 1
49 agcgctgctg ggagcgccg gtcggtcggg tccccgcgcc ccgcacgcc gcacgcccag 60
50 cggggcccgc attgagcatg ggcgcggcgg ccgtgcgctg gcacttgtgc gtgctgctgg 120
51 ccctgggcac acgcgggcgg ctggccgggg gcagcgggct cccagggtca gtcgacgtgg 180
52 atgagtgtc agagggcaca gatgactgcc acatcgatgc catctgtcag aacacgccc 240
53 agtctacaa atgcctctgc aagccaggct acaaggggga aggcaagcag tgtgaagaca 300
54 ttgacgagt tgagaatgac tactacaatg ggggctgtgt ccacgagtgc atcaacatcc 360
55 cggggaacta caggtgtacc tgctttgatg gcttcatgct ggcacacgat ggacacaact 420
56 gcctggatgt ggacgagtgt caggacaata atggtggctg ccagcagatc tgcgtcaatg 480
57 ccatgggcag ctacgagtgt cagtgccaca gtggttccct ccttagtgac aaccagcata 540
58 cctgcatcca ccgtcccaat gagggatatg actgcatgaa caaagaccat ggctgtgccc 600
59 acatctgccg ggagacgcc aaaggtgggg tggcctgcga ctgcaggccc ggctttgacc 660
60 ttgcccacaa ccagaaggac tgcacactaa cctgtaatta tggaaacgga ggctgccagc 720
61 acagctgtga ggacacagac acaggcccca cgtgtggttg ccaccagaag tacgccctcc 780

```

## RAW SEQUENCE LISTING

DATE: 10/01/2002

PATENT APPLICATION: US/10/029,020

TIME: 15:38:55

Input Set : A:\Cura2251.app

Output Set: N:\CRF4\10012002\J029020.raw

```

62 actcagacgg tcgcacgtgc atcgagacgt ggcagtgcaa taacggaggc tgcgaccgga 840
63 catgcaagga cacagccact ggcgtgcat gcagctgccc cgttgattc acactgcagc 900
64 cggacgggaa gacatgcaaa gacatcaacg agtgccctgt caacaacgga ggctgcgacc 960
65 acttctgccc caacaccgtg ggcagcttcg agtgccgtg ccggaagggc tacaagctgc 1020
66 tcaccgacga gcgcacctgc caggacatcg acgagtgtc cttcgagcgg acctgtgacc 1080
67 acatctgcat caactccccg ggcagcttcc agtgccgtg tcaccgcggc tacatcctct 1140
68 acgggacaac ccaactgcgga gatgtggacg agtgacgat gagcaacggg agctgtgacc 1200
69 agggctgctg caacaccaag ggcagctacg agtgccgtc tcccccgggg aggcggctcc 1260
70 actggaacgg gaaggattgc gtggagacag gcaagtgtct ttctcgcgcc aagacctccc 1320
71 cccgggcccga gctgtcctgc agcaaggcag gcggtgtgga gagctgcttc ctttctgccc 1380
72 cggctcacac actottcgtg ccacaagact cggaaaatag ctacgtcctg agctgcggag 1440
73 ttccagggcc gcagggcaag gcgctgcaga aacgcaacgg caccagctct ggcctcgggc 1500
74 ccagctgtc agatgcccc accaccccc taaacagaa ggcccgttc aagatccgag 1560
75 atgccaaagt ccacctccg cccacagcc aggcacgagc aaaggagacc gccaggcagc 1620
76 cgctgctgga ccaactgcat gtgactttcg tgacctcaa gtgtgactcc tccaagaaga 1680
77 ggcgcctggt ccgcaagtcc ccatccaagg aggtgtccca catcacagca gaggttgaga 1740
78 tcgagacaaa gatggaagag gcctcaggta catgcgaagc ggactgcttg cgggaagcag 1800
79 cagaacagag cctgcaggcc gccatcaaga ccctgcgcaa gtccatcgcc cggcagcagt 1860
80 tctatgtcca ggtctcaggc actgagtacg aggtagccca gaggccagcc aaggcgctgg 1920
81 aggggcaggg ggcattgtgg gcaggccagg tgctacagga cagcaaatgc gttgcctgtg 1980
82 ggcttgccac ccacttcggt ggtgagctcg gccagtgtgt gtcattgtat ccaggaacat 2040
83 accaggacat ggaaggccag ctgagttgca caccgtgccc cagcagcgac gggcttggtc 2100
84 tgcctggtgc ccgcaacgtg tcggaatgtg gaggccagtg ttctccagcc ttcttctcgg 2160
85 ccgatggctt caagccctgc caggcctgcc ccgtgggcac gtaccagcct gagcccgggc 2220
86 gcaccggctg cttccctgtt ggagggggtt tgctcaccaa acacgaaggc accacctcct 2280
87 tccaggactg cgaggctaaa gtgcaactg ccccgggcca ccaactacaac accaccaccc 2340
88 accgctgcat ccgctgcccc gtcggcacct accagcccga gtttgccag aaccaactgca 2400
89 tcacctgtcc gggcaacacc agcacagact tcgatggctc caccaacgtc acacactgca 2460
90 aaagtcaaga ctgcggcggc gagcttggtg actacaccgg ctacatcgag tcccccaact 2520
91 accctggcga ctaccagacc aacgtgtaat gcgtctggca catcgccct cccccaagc 2580
92 gcaggatcct catcgtggtc cctgagatct tctgcccac cgaggatgag tgcggcgatg 2640
93 ttctggtcat gaggaagagt gcctctccca cgtccatcac cacctatgag acctgccaga 2700
94 cctacgagag gccatcgcc ttacacctcc gctcccga gctctggatc cagttcaaat 2760
95 ccaatgaagg caacagcggc aaaggcttcc aagtgcccta tgtcacctac gatggtaaga 2820
96 tccactgtct tcacggccca ctgtgcacgg ctgaggcggg gccctggaga cacagagatg 2880
97 agtgcacgt ccccgccctc agggagctgc gacctggcag gtacagacct ggaagcagaa 2940
98 cgaacactgt cagggccag agccagacag gctgagggtg gtaccgggtg gtacaggcaa 3000
99 gacagcggtt agtggcctct gcaggcttca gctgagggtg tgcccaagca gggttttgag 3060
100 ggctaaatag ggggttctta gtgaaacccc gaggaggaca atacaggtgc agggagcccc 3120
101 aggttcaaa gacaga 3137
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 965
106 <212> TYPE: PRT
107 <213> ORGANISM: Homo sapiens
109 <400> SEQUENCE: 2
110 Met Gly Ala Ala Ala Val Arg Trp His Leu Cys Val Leu Leu Ala Leu
111 1 5 10 15
113 Gly Thr Arg Gly Arg Leu Ala Gly Gly Ser Gly Leu Pro Gly Ser Val
114 20 25 30

```

## RAW SEQUENCE LISTING

DATE: 10/01/2002

PATENT APPLICATION: US/10/029,020

TIME: 15:38:55

Input Set : A:\Cura2251.app

Output Set: N:\CRF4\10012002\J029020.raw

```

116 Asp Val Asp Glu Cys Ser Glu Gly Thr Asp Asp Cys His Ile Asp Ala
117          35          40          45
119 Ile Cys Gln Asn Thr Pro Lys Ser Tyr Lys Cys Leu Cys Lys Pro Gly
120          50          55          60
122 Tyr Lys Gly Glu Gly Lys Gln Cys Glu Asp Ile Asp Glu Cys Glu Asn
123          65          70          75          80
125 Asp Tyr Tyr Asn Gly Gly Cys Val His Glu Cys Ile Asn Ile Pro Gly
126          85          90          95
128 Asn Tyr Arg Cys Thr Cys Phe Asp Gly Phe Met Leu Ala His Asp Gly
129          100          105          110
131 His Asn Cys Leu Asp Val Asp Glu Cys Gln Asp Asn Asn Gly Gly Cys
132          115          120          125
134 Gln Gln Ile Cys Val Asn Ala Met Gly Ser Tyr Glu Cys Gln Cys His
135          130          135          140
137 Ser Gly Phe Leu Leu Ser Asp Asn Gln His Thr Cys Ile His Arg Ser
138          145          150          155          160
140 Asn Glu Gly Met Asn Cys Met Asn Lys Asp His Gly Cys Ala His Ile
141          165          170          175
143 Cys Arg Glu Thr Pro Lys Gly Gly Val Ala Cys Asp Cys Arg Pro Gly
144          180          185          190
146 Phe Asp Leu Ala Gln Asn Gln Lys Asp Cys Thr Leu Thr Cys Asn Tyr
147          195          200          205
149 Gly Asn Gly Gly Cys Gln His Ser Cys Glu Asp Thr Asp Thr Gly Pro
150          210          215          220
152 Thr Cys Gly Cys His Gln Lys Tyr Ala Leu His Ser Asp Gly Arg Thr
153          225          230          235          240
155 Cys Ile Glu Thr Cys Ala Val Asn Asn Gly Gly Cys Asp Arg Thr Cys
156          245          250          255
158 Lys Asp Thr Ala Thr Gly Val Arg Cys Ser Cys Pro Val Gly Phe Thr
159          260          265          270
161 Leu Gln Pro Asp Gly Lys Thr Cys Lys Asp Ile Asn Glu Cys Leu Val
162          275          280          285
164 Asn Asn Gly Gly Cys Asp His Phe Cys Arg Asn Thr Val Gly Ser Phe
165          290          295          300
167 Glu Cys Gly Cys Arg Lys Gly Tyr Lys Leu Leu Thr Asp Glu Arg Thr
168          305          310          315          320
170 Cys Gln Asp Ile Asp Glu Cys Ser Phe Glu Arg Thr Cys Asp His Ile
171          325          330          335
173 Cys Ile Asn Ser Pro Gly Ser Phe Gln Cys Leu Cys His Arg Gly Tyr
174          340          345          350
176 Ile Leu Tyr Gly Thr Thr His Cys Gly Asp Val Asp Glu Cys Ser Met
177          355          360          365
179 Ser Asn Gly Ser Cys Asp Gln Gly Cys Val Asn Thr Lys Gly Ser Tyr
180          370          375          380
182 Glu Cys Val Cys Pro Pro Gly Arg Arg Leu His Trp Asn Gly Lys Asp
183          385          390          395          400
185 Cys Val Glu Thr Gly Lys Cys Leu Ser Arg Ala Lys Thr Ser Pro Arg
186          405          410          415
188 Ala Gln Leu Ser Cys Ser Lys Ala Gly Gly Val Glu Ser Cys Phe Leu

```

## RAW SEQUENCE LISTING

DATE: 10/01/2002

PATENT APPLICATION: US/10/029,020

TIME: 15:38:55

Input Set : A:\Cura2251.app

Output Set: N:\CRF4\10012002\J029020.raw

189		420		425		430	
191	Ser	Cys	Pro	Ala	His	Thr	Leu
192				435			440
194	Tyr	Val	Leu	Ser	Cys	Gly	Val
195		450				455	
197	Lys	Arg	Asn	Gly	Thr	Ser	Ser
198	465				470		475
200	Pro	Thr	Thr	Pro	Ile	Lys	Gln
201				485			490
203	Lys	Cys	His	Leu	Arg	Pro	His
204			500				505
206	Arg	Gln	Pro	Leu	Leu	Asp	His
207		515				520	
209	Cys	Asp	Ser	Ser	Lys	Lys	Arg
210		530				535	
212	Glu	Val	Ser	His	Ile	Thr	Ala
213	545				550		555
215	Glu	Ala	Ser	Gly	Thr	Cys	Glu
216				565			570
218	Gln	Ser	Leu	Gln	Ala	Ala	Ile
219			580				585
221	Gln	Gln	Phe	Tyr	Val	Gln	Val
222		595				600	
224	Arg	Pro	Ala	Lys	Ala	Leu	Glu
225		610				615	
227	Val	Leu	Gln	Asp	Ser	Lys	Cys
228	625					630	
230	Gly	Gly	Glu	Leu	Gly	Gln	Cys
231				645			650
233	Asp	Met	Glu	Gly	Gln	Leu	Ser
234			660				665
236	Leu	Gly	Leu	Pro	Gly	Ala	Arg
237		675				680	
239	Ser	Pro	Gly	Phe	Phe	Ser	Ala
240		690				695	
242	Pro	Val	Gly	Thr	Tyr	Gln	Pro
243	705					710	
245	Cys	Gly	Gly	Gly	Leu	Thr	Lys
246				725			730
248	Asp	Cys	Glu	Ala	Lys	Val	His
249			740				745
251	Thr	Thr	His	Arg	Cys	Ile	Arg
252		755				760	
254	Phe	Gly	Gln	Asn	His	Cys	Ile
255		770				775	
257	Phe	Asp	Gly	Ser	Thr	Asn	Val
258	785					790	
260	Gly	Glu	Leu	Gly	Asp	Tyr	Thr
261				805			810

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,020

DATE: 10/01/2002

TIME: 15:38:55

Input Set : A:\Cura2251.app

Output Set: N:\CRF4\10012002\J029020.raw

```

263 Gly Asp Tyr Pro Ala Asn Ala Glu Cys Val Trp His Ile Ala Pro Pro
264           820           825           830
266 Pro Lys Arg Arg Ile Leu Ile Val Val Pro Glu Ile Phe Leu Pro Ile
267           835           840           845
269 Glu Asp Glu Cys Gly Asp Val Leu Val Met Arg Lys Ser Ala Ser Pro
270           850           855           860
272 Thr Ser Ile Thr Thr Tyr Glu Thr Cys Gln Thr Tyr Glu Arg Pro Ile
273 865           870           875           880
275 Ala Phe Thr Ser Arg Ser Arg Lys Leu Trp Ile Gln Phe Lys Ser Asn
276           885           890           895
278 Glu Gly Asn Ser Gly Lys Gly Phe Gln Val Pro Tyr Val Thr Tyr Asp
279           900           905           910
281 Gly Lys Ile His Cys Leu His Gly Pro Leu Cys Thr Ala Gln Ala Gly
282           915           920           925
284 Pro Trp Arg His Arg Asp Glu Ser His Val Pro Ala Leu Arg Glu Leu
285           930           935           940
287 Arg Pro Gly Arg Tyr Arg Pro Gly Ser Arg Thr Asn Thr Val Arg Gly
288 945           950           955           960
290 Gln Ser Gln Thr Gly
291           965
294 <210> SEQ ID NO: 3
295 <211> LENGTH: 874
296 <212> TYPE: DNA
297 <213> ORGANISM: Homo sapiens
299 <400> SEQUENCE: 3
300 ctcattgcggg atgcttccat atggtcttgt ttcaggagct ttgccctggt ctgttgaatg 60
301 ctctctagac ccagaggacg aagctctaa gaggtcacag atgaggaagg gttcactgag 120
302 tgtagtagat gctgtcagtg gcccaccac acctccaggc ctaccaggac gagggcgggc 180
303 gggcctgagc ggaagaacg gtttcccttg cgacggatcc tctgctatgc gctcggcctt 240
304 ctcggcggca cgcaccaccc ccctggaggg cagctcggag atggcgggtga ccttcgacaa 300
305 ggtgtacgtg aacatcgggg gcgacttcga cgcggcggcc ggcgtgttcc gctgcggtct 360
306 gcccgcgccc tacttcttct ccttcacgct gggcaagctg ccgcgtaaga cgctgtcggg 420
307 taagctgatg aagaaccgcg acgaggtgca ggccatgatt tacgaagacg gcgcgtcgcg 480
308 gcgcgcgag atgcagagcc agagcgtgat gctggccctg cggcgcgccg acgccgtctg 540
309 gctgctcagc cagcaccacg acggctacgg cgctacagc aaccacggca agtacatcac 600
310 cttctccggc ttctggtgt accccgacct cgcccccgcc gcccgccgg gcctcggggc 660
311 ctcgagacta ctgtgagccc cgggccagag aagagcccgg gagggccagg ggcgtgcatg 720
312 ccaggccggg cccgaggctc gaaagtccc cgcgagcgcc acggcctccg ggcgcgcctg 780
313 gactctgcca ataaagcgga aagcgggcac gcgcagcgcc cggcagccca ggactaagcc 840
314 gaatctgcaa aatccatcaa ctgccggcgc tgaatg           874
317 <210> SEQ ID NO: 4
318 <211> LENGTH: 221
319 <212> TYPE: PRT
320 <213> ORGANISM: Homo sapiens
322 <400> SEQUENCE: 4
323 Met Leu Pro Tyr Gly Leu Val Ser Gly Ala Leu Pro Cys Ser Val Glu
324 1           5           10           15
326 Cys Ser Leu Asp Pro Glu Asp Glu Ala Leu Arg Arg Ser Gln Met Arg
327           20           25           30

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/029,020

DATE: 10/01/2002  
TIME: 15:38:56

Input Set : A:\Cura2251.app  
Output Set: N:\CRF4\10012002\J029020.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:56; Xaa Pos. 333

Seq#:57; Xaa Pos. 333

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/029,020

DATE: 10/01/2002

TIME: 15:38:56

Input Set : A:\Cura2251.app

Output Set: N:\CRF4\10012002\J029020.raw

L:6747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:320

L:6853 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:320